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# Customer information packet

## ZDM4110T

54M 4P TEBC HOR 324T VECTOR TSTATS

Class - None

Division - Not Applicable

## Specifications

|                                |                                                                 |
|--------------------------------|-----------------------------------------------------------------|
| Enclosure                      | TEBC                                                            |
| Frame                          | 324T                                                            |
| Frame Material                 | Iron                                                            |
| Frequency                      | 60.00 Hz                                                        |
| Haz Area Class and Group       | None                                                            |
| Haz Area Division              | Not Applicable                                                  |
| Motor Letter Type              | Three Phase                                                     |
| Output @ Frequency             | 40.000 HP @ 60 HZ                                               |
| Phase                          | 3                                                               |
| Synchronous Speed @ Frequency  | 1800 RPM @ 60 HZ                                                |
| Voltage @ Frequency            | 230.0 V @ 60 HZ<br>460.0 V @ 60 HZ                              |
| Agency Approvals               | CSA<br>UR                                                       |
| Ambient Temperature            | 40 °C                                                           |
| Auxiliary Box                  | NO AUXILLARY BOX                                                |
| Auxiliary Box Lead Termination | None                                                            |
| Base Indicator                 | Rigid                                                           |
| Bearing Grease Type            | Polyrex EM (-20F +300F)                                         |
| Blower                         | BLOWER                                                          |
| Current @ Voltage              | 102.000 A @ 208.0 V<br>48.000 A @ 460.0 V<br>96.000 A @ 230.0 V |
| Design Code                    | A                                                               |
| Drip Cover                     | No Drip Cover                                                   |
| Duty Rating                    | CONT                                                            |
| Efficiency @ 100% Load         | 94.1 %                                                          |
| Electrically Isolated Bearing  | Not Electrically Isolated                                       |
| Feedback Device                | ENCODER                                                         |
| Front Shaft Indicator          | None                                                            |
| Heater Indicator               | No Heater                                                       |
| High Voltage Full Load Amps    | 48.0 a                                                          |

## Part detail

|              |            |
|--------------|------------|
| Revision     | G          |
| Type         | AC         |
| Mech. spec.  | 12T107     |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 12WGY276   |
| Layout       | 12LYT107   |
| Eff. date    | 08-18-2025 |
| CD Diagram   | CD0180     |
| Poles        | 04         |
| Leads        | 9#8        |
| Proprietary  | False      |
| Created date | 03-14-2019 |

|                               |                            |
|-------------------------------|----------------------------|
| Insulation Class              | H                          |
| Inverter Code                 | Inverter Duty              |
| KVA Code                      | H                          |
| Lifting Lugs                  | Standard Lifting Lugs      |
| Locked Bearing Indicator      | Locked Bearing             |
| Max Speed                     | 2700 rpm                   |
| Motor Lead Quantity/Wire Size | 9 @ 8 AWG                  |
| Motor Lead Termination        | Flying Leads               |
| Motor Standards               | NEMA                       |
| Motor Type                    | 1254M                      |
| Mounting Arrangement          | F1                         |
| Number of Poles               | 4                          |
| Overall Length                | 36.92 IN                   |
| Power Factor                  | 82                         |
| Product Family                | General Purpose            |
| Pulley End Bearing Type       | Ball                       |
| Pulley Face Code              | Standard                   |
| Pulley Shaft Indicator        | Standard                   |
| Rodent Screen                 | None                       |
| RoHS Status                   | ROHS COMPLIANT             |
| Service Factor                | 1.00                       |
| Shaft Diameter                | 2.125 IN                   |
| Shaft Ground Indicator        | No Shaft Grounding         |
| Shaft Rotation                | Reversible                 |
| Shaft Slinger Indicator       | Shaft Slinger              |
| Speed                         | 1775 rpm                   |
| Speed Code                    | Single Speed               |
| Starting Method               | Direct on line             |
| Thermal Device - Bearing      | None                       |
| Thermal Device - Winding      | Normally Closed Thermostat |
| Vibration Sensor Indicator    | No Vibration Sensor        |
| Winding Thermal 1             | None                       |
| Winding Thermal 2             | None                       |

## Nameplate

| NP1168L      |                      |  |         |         |      |       |       |  |     |
|--------------|----------------------|--|---------|---------|------|-------|-------|--|-----|
| CAT NO       | ZDM4110T             |  |         |         |      |       |       |  |     |
| SPEC.        | 12T107Y276Z1         |  |         |         |      |       |       |  |     |
| FRAME        | 324T                 |  |         | HP      |      | 40 TE |       |  |     |
| VOLTS        | 230/460              |  |         |         |      |       |       |  |     |
| MAG CUR      | 39/19.5              |  |         |         | FLA  |       | 96/48 |  |     |
| RPM          | 1775                 |  |         | RPM MAX |      |       | 2700  |  |     |
| HZ           | 60                   |  | PH      |         | 3    |       | CLASS |  | H   |
| SER.F.       | 1.00                 |  | DES     |         | A    |       | SL HZ |  | 0.8 |
| NEMA-NOM-EFF | 94.1                 |  | WK2     |         | 7.19 |       |       |  |     |
| BLWR V       |                      |  | PH      |         |      |       | HZ    |  | A   |
| RATING       | 40C AMB-CONT         |  |         |         |      |       |       |  |     |
| DE BRG       | 6312                 |  | ODE BRG |         |      |       | 6311  |  |     |
| CC           | 010A                 |  | SER.NO  |         |      |       |       |  |     |
|              | 1000:1 CT, 1000:1 VT |  |         |         |      |       |       |  |     |

## AC Induction Motor Performance Data

Record # 79747

Typical performance - not guaranteed values

| Winding: 12WGY276-R012 |    |         | Type: 1254M                              |                     | Enclosure: TEBC         |                       |       |         |
|------------------------|----|---------|------------------------------------------|---------------------|-------------------------|-----------------------|-------|---------|
| Nameplate Data         |    |         | 460 V, 60 Hz:<br>High Voltage Connection |                     |                         |                       |       |         |
| Rated Output (HP)      |    | 40      | Full Load Torque                         |                     | 118 LB-FT               |                       |       |         |
| Volts                  |    | 230/460 | Start Configuration                      |                     | direct on line          |                       |       |         |
| Full Load Amps         |    | 96/48   | Breakdown Torque                         |                     | 386 LB-FT               |                       |       |         |
| R.P.M.                 |    | 1775    | Pull-up Torque                           |                     | 193 LB-FT               |                       |       |         |
| Hz                     | 60 | Phase   | 3                                        | Locked-rotor Torque |                         | 216 LB-FT             |       |         |
| NEMA Design Code       |    | A       | KVA Code                                 | H                   | Starting Current        |                       | 338 A |         |
| Service Factor (S.F.)  |    | 1       | No-load Current                          |                     | 19.9 A                  |                       |       |         |
| NEMA Nom. Eff.         |    | 94.1    | Power Factor                             |                     | 82                      | Line-line Res. @ 25°C |       | 0.145 Ω |
| Rating - Duty          |    | 40C     | AMB-CONT                                 |                     | Temp. Rise @ Rated Load |                       | 54°C  |         |
| S.F. Amps              |    |         | Temp. Rise @ S.F. Load                   |                     | 65°C                    |                       |       |         |
|                        |    |         | Locked-rotor Power Factor                |                     | 27.3                    |                       |       |         |
|                        |    |         | Rotor inertia                            |                     | 7.19 lb-ft²             |                       |       |         |

## Load Characteristics 460 V, 60 Hz, 40 HP

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  |
|-----------------|------|------|------|------|------|------|
| Power Factor    | 47   | 69   | 78   | 83   | 85   | 85   |
| Efficiency      | 88.9 | 92.9 | 93.9 | 93.6 | 93.3 | 93.1 |
| Speed           | 1794 | 1788 | 1783 | 1777 | 1771 | 1764 |
| Line amperes    | 22.9 | 29.5 | 38.4 | 48.1 | 59.2 | 70.8 |

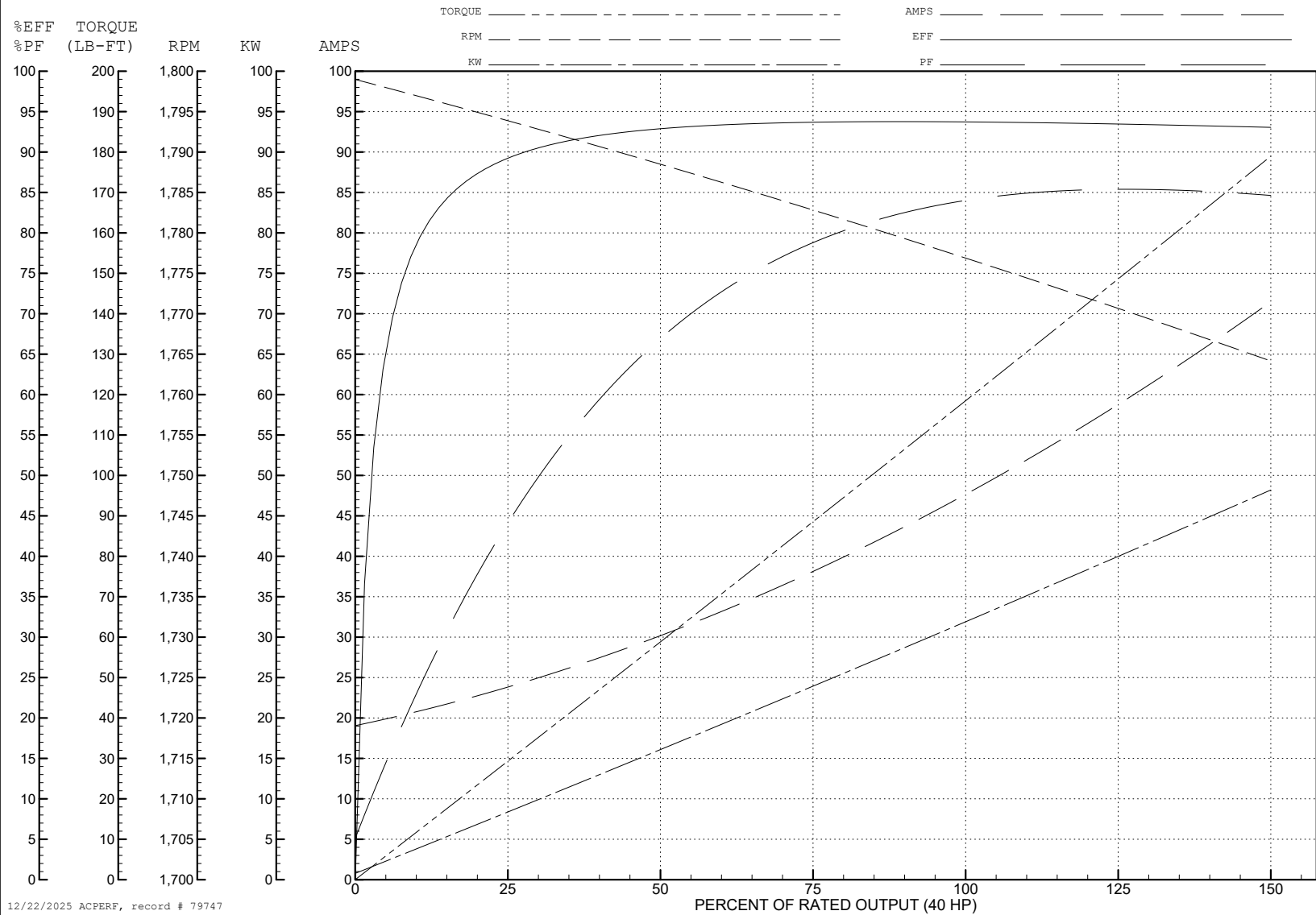
ABB Motors and Mechanical Inc.

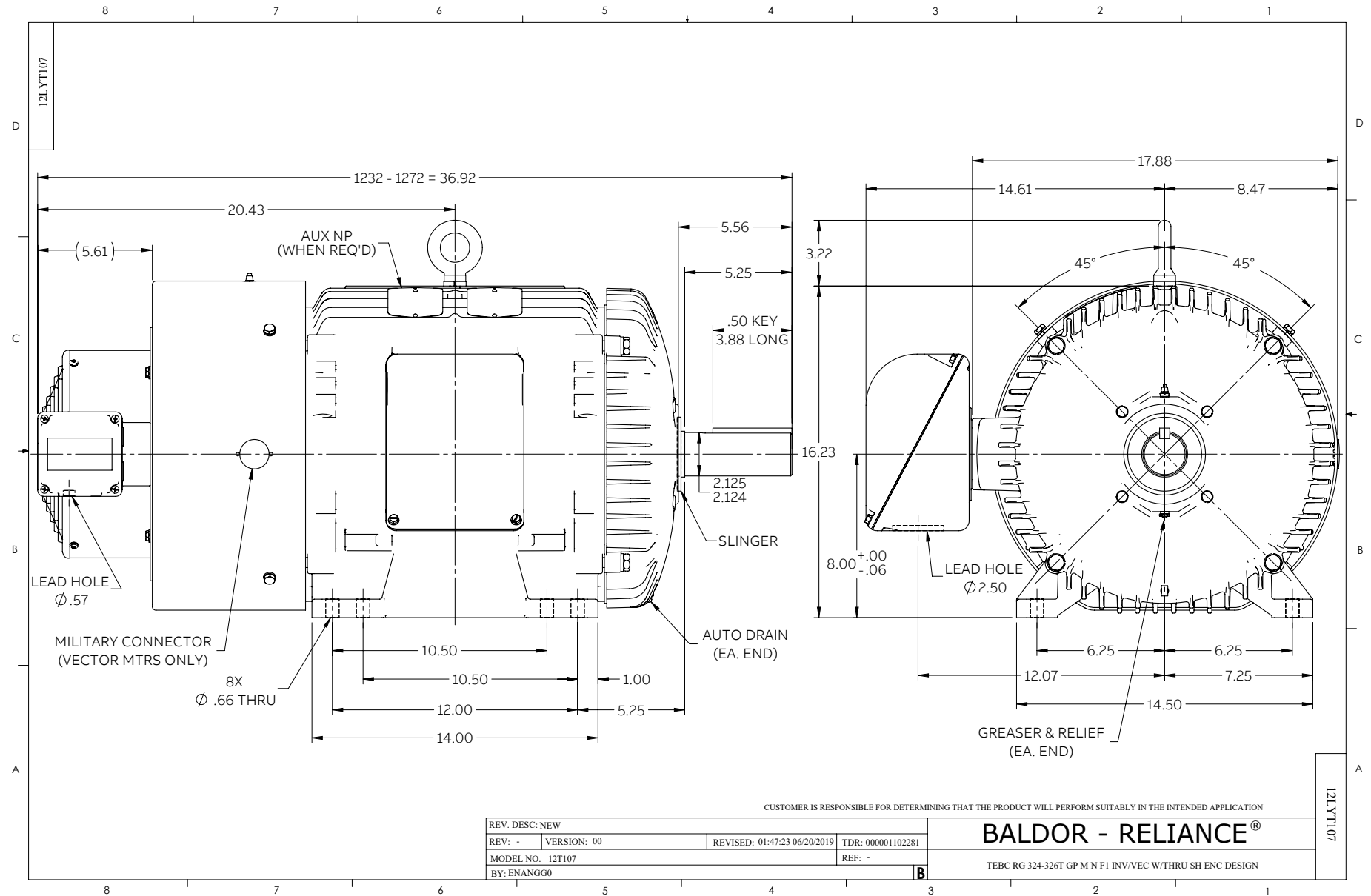
WINDING # 12WGY276

Typical performance - not guaranteed values.

40 HP 3 PH 60 HZ 1775 RPM 460 V 1254M

TORQUES (LB-FT): PO=386 PU=193 LR=216 LRA=338





CD0180

LOW VOLTAGE  
(2D)HIGH VOLTAGE  
(1D)

## NOTES:

1. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
2. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
3. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY BE A MULTIPLE OF THOSE SHOWN ABOVE.
4. LEAD COLORS ARE OPTIONAL. LEADS MUST ALWAYS BE NUMBERED AS SHOWN.

CD0180

REV. DESC: ADD CLASS CONN00000007

REV. LTR: D

VERSION: 01

TDR: 000001099922

FILE: \AAA\00005\148

REVISED: 10: 25: 29 02/19/2019

BY: ENBRIRO

MTL: —

**BALDOR - RELIANCE®**

3PH, DV, 9 LEADS, DELTA CONNECTION

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